INTEROPERABILITY

Packet Radio-Net Service Bursts Out of the Gate

HONG KONG—The Royal Hong Kong Jockey Club is a rather unusual organization. The largest non-profit organization in Hong Kong, it also operates one of the largest racetracks in the world. It is also one of the biggest betting operations you could imagine.

A few numbers will help to illustrate.

There are 67 race days per season. In the 1990-91 season, more than 187 million bets were placed, totaling more than $8 billion. On a typical race day, 2.8 million bets are placed.

Here's the rub. A typical race day has eight races. The vast majority of bets are not placed until 10 minutes before the race starts. When things start moving, more than 600 transactions per second must be processed.

There are several ways to place bets. One is to go to one of 127 different off-course betting facilities. There, more than 2,900 terminals are staffed (along with another 2,900 at the racetrack). The terminals are connected with 275 leased lines to a series of 12 PDP 11/44 front-end processors. Another 16 PDP systems handle the racetrack terminals.

Once a transaction hits the Jockey Club network it goes over a series of Ethernets (dual Ethernets provide redundancy) and Fiber Distributed Data Interface backbones to some very large VAX clusters. The Jockey Club is the largest Asian customer of Digital Equipment Corp.

Another way to place bets is Telebet. You set up an account at the Jockey Club and deposit some money. Then, you call one of 1,600 operators, give your personal identification number, and place your bet.

Ten minutes before race time, however, there are so many bets being placed that one estimate says only 10 percent of calls get through. Even then, the amount of traffic on the Hong Kong Network goes up to 20 to 40 times over normal levels. Talk about a peak load problem!

One solution is a new little portable betting terminal the club developed. This hand-held device lets you input all your bets. Then, you simply find a phone jack and plug it in, and it places the bets automatically. Instead of taking several minutes to place a bet, the phone line is in use only for a few seconds, thus squeezing more bets out of a finite telephone infrastructure.

For the gambler on the go, there is an even more impressive solution. Hutchinson Mobile Data is a company in Hong Kong that provides a packet radio network service.

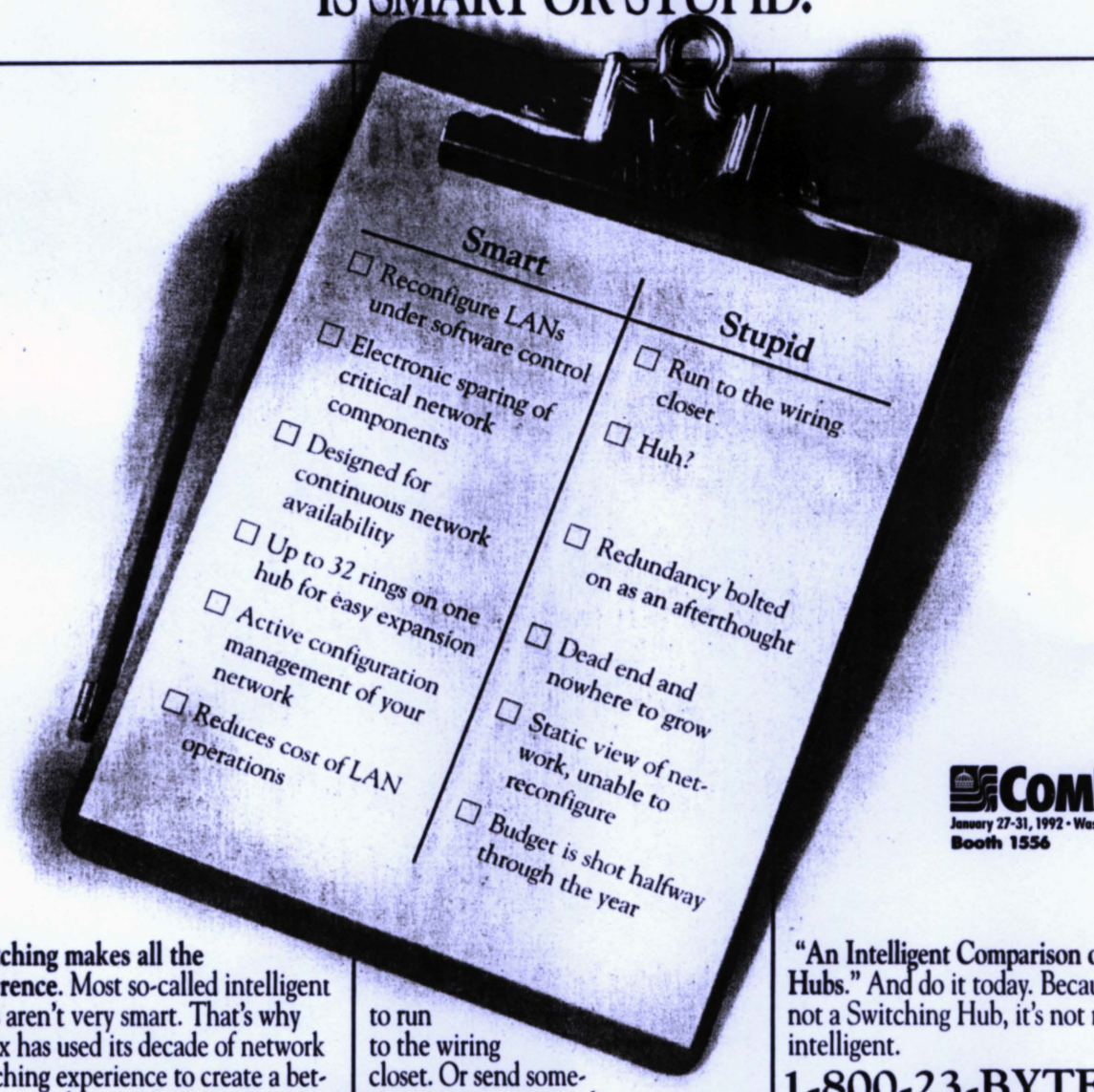
They have a little radio modem with an RS-232 port on the back. You simply plug the Jockey Club portable terminal into the Hutchinson radio modem and you can place bets from your BMW while driving off to your private club.

It used to be that construction crews would disappear on race day. To keep people on the job, a foreman will sit in a minivan at a construction site and place bets for the workers, thereby keeping them on the job.

There is even one old man who sits down at the ferry pier on a remote Hong Kong island and places bets for the villagers. ■

CARL MALAMUD'S NEXT BOOK IS 'EXPLORING THE INTERNET: A TECHNICAL TRAVELOGUE,' WHICH WILL BE PUBLISHED BY PRENTICE HALL AND WILL BE FEATURED AT INTEROP '92 FALL. THE OPINIONS EXPRESSED HERE ARE HIS OWN.

HOW TO TELL IF AN INTELLIGENT HUB IS SMART OR STUPID.


Smart
Reconfigure LANs under software control
Electronic sparing of critical network components
Designed for continuous network availability
Up to 32 rings on one hub for easy expansion
Active configuration management of your network
Reduces cost of LAN operations
Stupid
Run to the wiring closet
Huh?
Redundancy bolted on as an afterthought
Dead end and nowhere to grow
Static view of network, unable to reconfigure
Budget is shot halfway through the year

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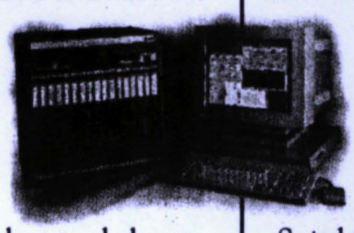

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